

REMARKS

This application has been carefully reviewed in light of the Office Action mailed December 10, 2002. In order to advance the prosecution of this application, Applicants have responded to each issue raised by the Examiner. Applicants respectfully request reconsideration, further examination, and favorable action in this case.

The Examiner rejects Claim 15 under 35 U.S.C. § 112. Applicants have amended Claim 15 to correct various informalities raised by the Examiner. Applicants respectfully request withdrawal of this rejection.

The Examiner also rejects Claims 1-22 under 35 U.S.C. § 103(a), as being unpatentable over U.S. Patent No. 6,009,332 to Haartsen ("*Haartsen*"). Applicants respectfully traverse these rejections for the reasons discussed below.

Amended Claim 1 recites a system for minimizing the loss of information in cordless communications, which includes:

a first data station having control logic, the control logic operable to:

establish a plurality of individual communication channels needed to transmit information between the first data station and a second data station, each of the channels associated with a unique channel frequency; select a first unique channel frequency to be used for the first channel between the two data stations; access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel; determine parameters relating to a spectral separation between each of the channels, the spectral separation describing a separation between a pair of unique channel frequencies associated with the channels; and select unique channel frequencies for the remainder of the plurality of channels in response to the determined parameters by selecting a frequency from each frequency set, each pair of unique channel frequencies having a spectral separation; and

response logic residing in the second data station, the response logic operable to receive the information from the first data station on the plurality of communication channels.

Haartsen discloses an allocation method and system for allocating a least-interfered communications link between a cellular mobile station and a private radio base station within a cellular system. (*Abstract*). According to *Haartsen*, a hop list from which frequencies are

selected is generated. (Col. 8, Line 4-Col. 10, Line 55; Col. 10, Line 58-Col. 11, Line 5). To generate the hop list, channels are measured. (Col. 10, Lines 58-60). *Haartsen* describes "channels" as frequency/timeslot combinations, where ARFCN indicates the frequency and TN indicates the timeslot number. (Col. 10, Lines 58-60). An ARFCN/TN list is ordered according to the measurements to form an ordered DHS candidate list 42. (Col. 10, Lines 60-62). From the ordered list 42, the top N channels are taken to be used in the DHS traffic (or active) mode, forming a preferred DHS traffic list 44. (Col. 10, Lines 62-65). The preferred DHS traffic list 44 may be used directly as a hop list when a channel is a frequency such as in an FDMA system. (Col. 10, Line 66-Col. 11, Line 1). In an FDMA/TDMA system, channels using the same timeslot may be grouped into M hop lists, where M represents the number of timeslots in a frame. (Col. 11, Lines 1-5).

Haartsen teaches that the frequencies for the channels are selected from one hop list. As a result, *Haartsen* contains no mention of accessing "frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting unique channel frequencies for the channels by selecting a frequency from each "frequency set." Moreover, the technique of *Haartsen* does not teach or suggest each pair of unique channel frequencies having a "spectral separation." The Examiner states, "Thus these lists are reordered based on a predetermined parameter (i.e., the averaging function using RSSI) creating a broad but reasonable interpretation of "spectral separation" between channels." (*Office Action, Page 4, Paragraph 2-Page 5, Paragraph 1*). Applicants respectfully request further explanation of how list reordering creates an interpretation of "spectral separation." For at least these reasons, *Haartsen* fails to teach or suggest selecting unique channel frequencies for the channels from "frequency sets," where each pair of unique channel frequencies has a "spectral separation" as recited in Claim 1.

Moreover, as admitted by the Examiner, *Haartsen* does not present a cordless system. (*Office Action, Page 5, Paragraph 1*). According to the Examiner, "*Haartsen* in general discloses a private radio system [column 1, lines 29-32]." (*Office Action, Page 5, Paragraph 1*). The Examiner notes, "[I]t would have been obvious to a skilled artisan prior to applicant's invention to use a cordless system with the teachings of *Haartsen*," where the "motivation for

doing so is that the principles in general apply to FDMA and FDMA/TDMA systems such as that found in a cordless system." (*Office Action, Page 5, Paragraph 1*).

To the extent that the Examiner relies on this and other knowledge claimed to be well known in the art to teach or suggest Claim 1, Applicants respectfully request that the Examiner provide citations to specific references. Applicants also respectfully request that the Examiner provide an explanation how those references specifically teach or suggest elements of Claim 1.

For at least these reasons, Claim 1 is patentable over *Haartsen*. Applicants respectfully request withdrawal of the rejection and full allowance of Claim 1, and Claims 2-6 depending from Claim 1.

Claim 7 recites "accessing a plurality of frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting additional unique carrier frequencies by "selecting a frequency from each frequency set."

Claim 15 recites "accessing a plurality of frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting unique carrier frequencies by "selecting a frequency from each frequency set," where each pair of unique carrier frequencies has a spectral separation.

Claim 21 recites accessing "frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting at least one unique channel frequency "by selecting a frequency from each frequency set," where each pair of unique channel frequencies has a spectral separation.

Claim 22 recites accessing "frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting at least one unique channel frequency "by selecting a frequency from each frequency set."

As described above, *Haartsen* fails to teach or suggest accessing "frequency sets," where each frequency of a frequency set corresponds to a channel, and selecting at least one unique channel frequency "by selecting a frequency from each frequency set." Moreover, *Haartsen* fails to teach or suggest each pair of unique channel frequencies having a "spectral separation."

For at least these reasons, Applicants respectfully request withdrawal of the rejection and full allowance of Claims 7, 15, and 21-22, Claims 8-14 depending from Claim 7, and Claims 16-20 depending from Claim 15.

CONCLUSION

For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request reconsideration and full allowance of all pending claims.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with Markings to Show Changes Made." Also, for the convenience of the Examiner, a clean set of claims is attached in the "Clean Version of All of the Pending Claims" section, consolidating all claims currently pending in the application.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

Applicants do not believe that any fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 19-2179 of Siemens Corporation.

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Respectfully requested,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1. (Amended) A system for minimizing the loss of information in cordless communications, comprising:

a first data station having control logic, the control logic operable to:

establish a plurality of individual communication channels needed to transmit information between the first data station and a second data station, each of the channels associated with a unique channel frequency[,]; select a first unique channel frequency to be used for the first channel between the two data stations; **access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;** determine parameters relating to a spectral separation between each of the channels, **the spectral separation describing a separation between a pair of unique channel frequencies associated with the channels;** and select unique channel frequencies for the remainder of the plurality of channels in response to the determined parameters **by selecting a frequency from each frequency set, each pair of unique channel frequencies having a spectral separation;** and

response logic residing in the second data station, the response logic operable to receive the information from the first data station on the plurality of communication channels.

7. (Amended) A method for minimizing the loss of information in cordless communications, comprising:

a) establishing a plurality of individual communication channels between at least two data stations, **and accessing a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;**

b) selecting a first unique carrier frequency to be used for the first of the plurality of channels;

c) determining parameters relating to achieving a maximum throughput of information over the channels between the data stations; and

d) selecting additional unique carrier frequencies to be used for the remainder of the plurality of channels, in response to the determined parameters **by selecting a frequency from each frequency set.**

15. (Amended) A method for minimizing the loss of information in cordless communications, comprising:

- a) providing at least two data stations having a plurality of communication channels to transmit information between the data stations, and accessing a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;
- b) determining a first unique carrier frequency for the first of the channels between the data stations;
- c) determining parameters relating to a spectral separation required for the next one of the channels, the spectral separation describing a separation between a pair of carrier frequencies associated with the channels; [and]
- d) repeating [the process] the steps of determining a first unique carrier frequency and determining parameters for another channel; and
- e) selecting unique carrier frequencies for the remainder of the plurality of channels in response to the determined parameters by selecting a frequency from each frequency set, each pair of unique carrier frequencies having a spectral separation.

20. (Amended) The method of Claim 15, wherein steps (b)-([d]e) are performed at regular intervals of time.

21. (Amended) An apparatus for minimizing the loss of information in cordless communications comprising control logic, the control logic operable to:

select a first unique channel frequency associated with one of a plurality of communication channels;

access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;

determine one or more parameters relating to a spectral separation between at least two of the channels, the spectral separation describing a separation between a pair of unique channel frequencies associated with the channels; and

select at least one unique channel frequency for the remainder of the plurality of channels using the one or more determined parameters by selecting a frequency from each frequency set, each pair of unique channel frequencies having a spectral separation.

22. (Amended) An apparatus for minimizing the loss of information in cordless communications comprising control logic, the control logic operable to:

select a first unique channel frequency associated with one of a plurality of communication channels;

access a plurality of frequency sets, each frequency of a frequency set corresponding to a channel;

determine one or more parameters relating to achieving a maximum throughput of information over the channels; and

select at least one unique channel frequency for the remainder of the plurality of channels using the one or more determined parameters by selecting a frequency from each frequency set.